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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/683,782	02/13/2002	Manoharprasad K. Rao	201-0634 FAM	9496

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EXAMINER

PREVIL, DANIEL

ART UNIT	PAPER NUMBER
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2636

DATE MAILED: 01/30/2004

8

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/683,782

Applicant(s)

RAO ET AL.

Examiner

Daniel Previl

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

This action is responsive to communication filed on November 21, 2003.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-17 are rejected under 35 U.S.C. 102(e) as being anticipated by Miller et al. (US 2003/0139881).

Regarding claim 1, Miller teaches a pre-cash sensing system coupled to a countermeasure system having at least a first countermeasure and a second countermeasure (abstract; fig. 1) comprising: a vision system 69 for generating an object size signal and object distance signal (page 2, ref. 0035); a controller 12 coupled to the vision system for deploying either first countermeasure or first and second countermeasures in response to object distance signal and object size signal (page 3, ref. 0040; page 4, ref. 0047-0048).

Regarding claim 2, Miller teaches a vision system comprises a stereo pair of cameras (page 2, ref. 0035).

Regarding claim 3, Miller teaches object size comprises height (page 2, ref. 0035).

Regarding claim 4, Miller teaches object size comprises object area and object height (page 2, ref. 0035).

Regarding claim 5, Miller teaches a vehicle speed sensor corresponding to the longitudinal speed of the vehicle wherein controller activates countermeasure system in response to the longitudinal speed signal (page 2, ref. 0031).

Regarding claim 6, Miller teaches a decision zone (field of view 104) wherein vision sensor detects an object and generates an object distance signal from an object within the decision zone (fig. 7; page 3, ref. 0041-0042).

Regarding claim 7, Miller teaches a pre-crash sensing system for an automotive vehicle having a countermeasure system (abstract) comprising: establishing a decision zone relative to the vehicle (field of view 104) (fig. 7); detecting an object within the decision zone using a vision system (page 3, ref. 0045); determining an object distance and relative velocity using a vision system (page 3, ref. 0045), determining an object size (page 2, ref. 0035) and activating the countermeasure system in response to the object size and relative velocity (page 3, ref. 0040-0042).

Regarding claim 8, Miller teaches the step of determining object size comprises: determining object height; wherein activating the countermeasure system in response to the object size comprises activating the countermeasure system in response to the object height (page 2, ref. 0035, page 3, ref. 0040).

Regarding claim 9, Miller teaches the step of determining an object size comprises determining an object cross sectional area; wherein activating the countermeasure system in response to the object size comprises activating the countermeasure system in response to the object cross-sectional area (fig. 7; page 2, ref. 0035; page 3, ref. 0040).

Regarding claim 10, Miller teaches the step of determining an object size comprises determining an object cross sectional area and object height; wherein activating the countermeasure system in response to the object size comprises activating the countermeasure system in response to the object cross-sectional area and object height (fig. 7; page 2, ref. 0035; page 3, ref. 0040).

Regarding claim 11, Miller teaches the step of determining an object cross-sectional area comprises determining the object cross-sectional area with a vision system (fig. 1; fig. 7)

Regarding claim 12, Miller teaches the step of detecting an object within the decision zone comprises detecting the object within the decision zone with a stereo pair of cameras (fig. 7, page 2, ref. 0035).

Regarding claim 13, Miller teaches the step of activating, choosing the first countermeasure and the second countermeasure in response to object size (fig. 6; page 3, ref. 0040)

Regarding claim 14, Miller teaches the step of determining an object size comprises determining the vehicle orientation; wherein activating the countermeasure in response to the object size comprises activating the countermeasure system in response to the object size and vehicle orientation (page 2, ref. 0035; page 3, ref. 0040-0042).

Regarding claim 15, Miller teaches the step of establishing a decision zone in front of the vehicle (fig. 7; page 1, ref. 0002).

Regarding claim 16, Miller teaches the step of detecting an object within the decision zone; and activating the countermeasure in response to detecting an object within the decision zone (page 3, ref. 0045).

Regarding claim 17, Miller teaches the step of activating the countermeasure system comprises activating a first countermeasure comprising pre-arming airbags and pretensioning motorized belt pretensioners, or activating the first countermeasure and a second countermeasure wherein second countermeasure comprises adjusting the host vehicle suspension height in response to object size and orientation (fig. 6; page 2, ref. 0035, page 3, ref. 0038-0042)

Response to Arguments

3. Applicant's arguments with respect to claims 1-17 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

1. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Miller et al. (US 6,480,102) discloses a method and apparatus for activating a crash countermeasure in response to the road condition.

Adolph et al. (US 5,785,347) discloses an occupant sensing and crash behavior system.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel Previl whose telephone number is 703 305-1028. The examiner can normally be reached on Monday-Thursday. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeff Hofsass can be reached on 703 305 4717. The fax phone numbers for the organization where this application or proceeding is assigned are 703 872-9314 for regular communications and 703 872-9315 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 305-4700.

A handwritten signature in black ink, appearing to read "Daniel Previl", written in a cursive style.

Daniel Previl
Examiner
Art Unit 2632

DP
January 26, 2004